

PATENT ABSTRACTS OF JAPAN

(11) Publication number : 2002-332072

(43) Date of publication of application : 22.11.2002

(51) Int.Cl.

B65D 81/26
B01D 53/26
B65D 77/26

(21) Application number : 2001-138167

(71) Applicant : S T CHEM CO LTD

(22) Date of filing : 09.05.2001

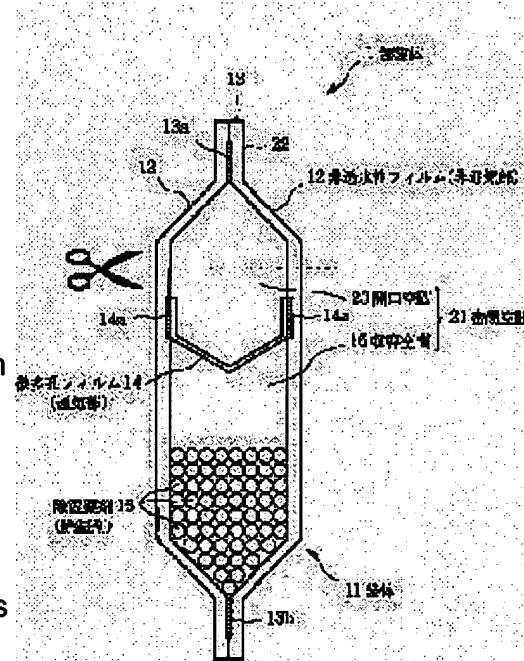
(72) Inventor : TANAKA YUICHI

(54) PACKAGE AND DEHUMIDIFIER

(57) Abstract:

PROBLEM TO BE SOLVED: To provide a package and a dehumidifier which can reduce an amount of wastes while reducing a cost and can prevent contents from changing before start of use.

SOLUTION: The package 1 includes a bag 11 which shuts out permeation of air, and the bag 11 comprises water-impermeable films 12 and 12 which are joined with each other. A film 14 with fine pores which allows air to permeate is provided on an internal surface of the bag 11, and granular dehumidifying agents 16 for absorbing moisture in the air are received in a storage space 15 below the film 14. A rim of an opening 13 of the bag 11 is joined to close to make a sealed space 21 where ventilation of air is shut out. An opening space 23 to be opened when use is formed between a closed part 22 and the film 14, and the sealed space 21 is divided into the storage space 15 and the opening space 23 via the film 14.



LEGAL STATUS

[Date of request for examination]

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than
the examiner's decision of rejection or
application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's
decision of rejection]

[Date of requesting appeal against examiner's
decision of rejection]

[Date of extinction of right]

Copyright (C); 1998,2003 Japan Patent Office

*** NOTICES ***

JPO and NCIP are not responsible for any damages caused by the use of this translation.

1. This document has been translated by computer. So the translation may not reflect the original precisely.
2. **** shows the word which can not be translated.
3. In the drawings, any words are not translated.

DETAILED DESCRIPTION

[Detailed Description of the Invention]**[0001]**

[Field of the Invention] This invention relates to the package object and dehumidifier with which the dehumidification agent, the aromatic, the deodorant, the deodorant, etc. were held.

[0002]

[Description of the Prior Art] The dehumidifier was used when taking moisture conventionally.

[0003] This dehumidifier consisted of a plastic envelope which held the dehumidification agent, and opening of this plastic envelope was covered with the infiltrative sheet. On this infiltrative sheet, the laminating of the sheet of non-infiltration is carried out, and it is constituted so that moisture absorption by the dehumidification agent before the beginning of using can be prevented.

[0004] Moreover, using the saccate dehumidification agent (vessel) and the molding container of plastics which enclosed the dehumidification agent with the interior of the bag body which consisted of infiltrative sheets, the whole surface thru/or a part repacked only dehumidification agent drugs, and repacks them, and the dehumidifier of a formula is known. These saccate dehumidification agent (vessel) and refill dehumidification drugs were what packs the whole with the package object of non-infiltration, is constituted at the time of circulation so that moisture absorption by the dehumidification agent before the beginning of using may be prevented, opens a package object at the time of use, and uses only internal drugs.

[0005]

[Problem(s) to be Solved by the Invention] However, if it is in a dehumidifier like the former, in order to raise moisture absorption effectiveness, said sheet of the magnitude set as the large area will be discarded as dust on the structure of exfoliating the sheet of non-infiltration at the time of the beginning of using. The infiltrative sheet by which was easy to remove said sheet of non-infiltration, and the laminating was carried out to this sheet must be stripped, and it must be made for there to have to be at this time. For this reason, both had to be fixed with different bond strength and increase of a manufacturing cost was caused.

[0006] Moreover, in the latter, since a package object would be discarded as dust at the time of use, there was a problem that the amount of dust increased. Moreover, the production process of a product is another process and the packaging process had caused increase of a manufacturing cost. The technical problem about such a conventional dehumidification agent is the same also about the aromatic from which a condition changes according to contact into a gas, a deodorant, an insecticide, and a deoxidant.

[0007] This invention being made in view of the technical problem of these former, and attaining low cost-ization, it reduces the amount of dust and aims at offering the package object and dehumidifier which can prevent change of the contents before use.

[0008]

[Means for Solving the Problem] In order to solve said technical problem, it sets on the package object of claim 1 of this invention. While forming a closed space by the non-infiltration section which held the matter from which a condition changes according to contact into a gas and which is a package object and

intercepts gaseous transparency. The inside of this closed space was divided by the infiltration section which permits gaseous transparency to the hold space in which said matter was held, and the opening space by which opening is carried out at the time of use.

[0009] That is, the matter which changes according to contact into a gas is held in the closed space formed of the non-infiltration section which intercepts gaseous transparency. For this reason, contact to an external gas and said matter is prevented.

[0010] And said closed space is divided by the infiltration section and the hold space in which said matter was held is separated with the opening space by which opening is carried out at the time of use. For this reason, unprepared scattering of said matter is prevented at the time of the use to which opening of said opening space is carried out. Since said infiltration section permits gaseous transparency at this time, contact into said matter and external gas is started.

[0011] Moreover, if it was in the package object of claim 2, the sheet object which consists of said infiltration section closed the opening side of the bag body which consists of said non-infiltration section, said hold space was formed, from said sheet object, said bag body was joined and said opening space was formed between a part for this joint, and said sheet object on the opening veranda.

[0012] That is, said matter is fed into the bag body which consists of said non-infiltration section, and this matter is held. And the bag body concerned is sealed by joining said bag body on an opening veranda from said sheet object prepared in said bag body.

[0013] Furthermore, with the package object of claim 3, the non-infiltration sheet which consists of an infiltration sheet which consists of said infiltration section, and said non-infiltration section was joined, and said hold space was formed among both sheets, it joined in the periphery section by the condition of having made said infiltration sheet meeting, and said opening space was formed between said infiltration sheets.

[0014] That is, since it joined in the condition of having made the infiltration sheet meeting, the infiltration sheet which permits gaseous transparency is sealed in the condition of having been arranged inside.

[0015] Moreover, it sets in the dehumidifier of claim 4 of this invention. While forming a closed space by the non-infiltration section which has the package object with which the dehumidification agent which absorbs moisture the moisture in air was held and which is a dehumidifier and intercepts transparency of air. It had said package object which comes to divide the inside of this closed space by the infiltration section which permits transparency of air to the hold space in which said dehumidification agent was held, and the opening space by which opening is carried out at the time of use.

[0016] That is, the dehumidification agent which absorbs moisture the moisture in air is held in the closed space formed of the non-infiltration section which intercepts transparency of air. For this reason, contact to external air and said dehumidification agent is prevented.

[0017] And said closed space is divided by the infiltration section and the hold space in which said dehumidification agent was held is separated with the opening space by which opening is carried out at the time of use. For this reason, unprepared scattering of said dehumidification agent is prevented at the time of the use to which opening of said opening space is carried out. Since said infiltration section permits transparency of air at this time, contact to said dehumidification agent and external air is started.

[0018] Furthermore, with the dehumidifier of claim 5, the sheet object which consists of said infiltration section closed the opening side of the bag body which consists of said non-infiltration section, said hold space was formed, from said sheet object, said bag body was joined and said opening space was formed between a part for this joint, and said sheet object on the opening veranda.

[0019] That is, said dehumidification agent is fed into the bag body which consists of said non-infiltration section, and this dehumidification agent is held. And the bag body concerned is sealed by joining said bag body on an opening veranda from said sheet object prepared in said bag body.

[0020] Moreover, if it was in the dehumidifier of claim 6, the non-infiltration sheet which consists of an infiltration sheet which consists of said infiltration section, and said non-infiltration section was joined,

and said hold space was formed among both sheets, it joined in the periphery section by the condition of having made said infiltration sheet meeting, and said opening space was formed between said infiltration sheets.

[0021] That is, since it joined in the condition of having made the infiltration sheet meeting, the infiltration sheet which permits transparency of air is sealed in the condition of having been arranged inside.

[0022] In addition, in the dehumidifier of claim 7, while having the bottle object which holds said package object, and the lid equipped with the bleeder for up opening of this bottle object with the wrap and setting the volume of said bottle object as 7 or more times of the volume of said dehumidification agent, said bottle object was set as the depth in which said dehumidification agent is located near [said] the up opening of said bottle object where said package object is held.

[0023] That is, the volume of the bottle object which holds said package object is set as 7 or more times of the volume of said dehumidification agent. Thereby, the outflow to the exterior of the moisture stored by the package object after dehumidification is prevented.

[0024] Moreover, in order to demonstrate absorbency efficiently, said package object is set so that the infiltration section may turn to the up opening side of a bottle object. Since it is covered with the lid with which this up opening was equipped with the bleeder at this time, breakage of said infiltration section resulting from fall of the foreign matter to the dehumidifier concerned etc. is prevented.

[0025] And in the condition of having held said package object in said bottle object, said dehumidification agent is arranged near [said] the up opening of said bottle object.

[0026] Moreover, if it was in the dehumidifier of claim 8, while said lid inner-***(ed) at said up opening of said bottle object, the location specification part which carries out location regulation of said infiltration sheet of said package object in the condition of having arranged inside was prepared.

[0027] Furthermore, with the dehumidifier of claim 9, while preparing the location specification part which carries out location regulation of said infiltration sheet of said package object in the condition of having arranged inside in said lid, the peripheral wall attached outside said up opening of said bottle object was prepared outside this location specification part.

[0028] That is, such structure can be considered as a lid which fits into a bottle object. Since a package object does not interfere in a fitting part by adopting such a lid and a container, fitting of a container and the lid can be carried out certainly.

[0029]

[Embodiment of the Invention] (Gestalt of the 1st operation)

[0030] Hereafter, the gestalt of operation of the 1st of this invention is explained according to drawing.

Drawing 1 is the sectional view showing the package object 1 concerning the gestalt of this operation, and this package object 1 constitutes a dehumidifier 5 with the bottle object 2 which holds the package object 1 concerned, and the lid 4 equipped with the bleeder (not shown) for the up opening 3 of this bottle object 2 with the wrap, as shown in drawing 2.

[0031] Said package object 1 comes to have the bag body 11 which is the non-infiltration section which intercepts transparency of the air as a gas as shown in drawing 1, the non-water permeability films 12 and 12 of the shape of a rectangle which accomplishes a pair are joined in the base and the right-and-left side side, and this bag body 11 is formed. The fine porosity film 14 as a sheet object which is the infiltration section which permits transparency of the air as a gas is being fixed to the medial surface by the side of the opening 13 of this bag body 11 in the heat seal sections 14a and 14a. Thereby, the hold space 15 is formed in the lower part of this fine porosity film 14, and much granular dehumidification drugs 16 which absorb moisture the moisture in air, and ... are held in this hold space 15.

[0032] Said fine porosity film 14 is bent in the shape of V character in the center section of said bag body 11, and it is constituted so that a bag body 11 can be developed in a longitudinal direction.

[0033] This bag body 11 is closed where the edge and the margo-inferior section of said opening 13 are joined in the heat seal sections 13a and 13b, and the closed space 21 where the conduction of air was intercepted is formed in the interior of the bag body 11 concerned. Besides, the opening space 23 by which opening is carried out is formed in from the closing section 22 of the section before said fine

porosity film 14 at the time of use, and said closed space 21 is divided with said fine porosity film 14 in said hold space 15 and said opening space 23.

[0034] As shown in drawing 2, said bottle object 2 is formed by plastics, and it is constituted by said up opening 3 so that it can hold, where peripheral wall 4a of said lid 4 is inner-** (ed). This peripheral wall 4a is set as the dimension which can carry out location regulation of said fine porosity film 14 of said package object 1 in the condition of having arranged inside, as shown in (c) from (b) of drawing 2.

[0035] Moreover, the volume of said bottle object 2 is set up so that it may become more than the volume of the contents which consist of said dehumidification drugs 16, the dehumidification drugs 16 concerned in the condition that moisture absorption by ... was saturated mostly, and moisture that absorbed moisture with ...

[0036] Here, the case where a calcium chloride is used as said dehumidification drugs 16 and ... is mentioned as an example, and is explained.

[0037] Namely, a calcium chloride and 2 monohydrate: When container volume: 620ml is filled up with 190g and it is made to absorb moisture on 40 degrees C, the humidity of 90%, and the conditions for two months, water absorption is saturated mostly. The hygroscopic water daily dose at this time was 540g.

[0038] In order that a calcium chloride and 2 monohydrate may absorb water in one 2.84 times the moisture of this, the weight at this time is [0039].

{Weight (g) x [of a calcium chloride and 2 monohydrate] (1+2.84)} g ... (formula A)

[0040] It becomes.

[0041] It is [0042] when it converts into the volume.

{Weight [of a calcium chloride and 2 monohydrate] (g) x(0.42+2.84)} ml ... (formula B)

[0043] It becomes.

[0044] * 0.42 is the increment in capacity [0045] when a calcium chloride and 2 monohydrate is able to solve in water. And the container volume (ml) required for a product is determined by the amount (g) of a calcium chloride and 2 monohydrate. Although it becomes "the volume of (weight g) x3-4 of a calcium chloride and 2 monohydrate (ml)" simply, weight cannot be simply transposed to the volume.

[0046] For this reason, although what is necessary is just to measure the amount of a calcium chloride and 2 monohydrate to the true volume, a calcium chloride and 2 actual monohydrate is granular, and it is difficult to include the air included in the clearance between grained, and a grain in count, and to ask for the true volume easily. As the approach, it pressurizes after grinding and hardens. It fuses at hundreds of degrees C. A constant rate is melted in water and the increment volume is measured. ** is mentioned.

[0047] In addition, the value which computed the increment volume by having melted the constant rate in water is 0.42 mentioned above, and was with this in this time as specific gravity.

[0048] On the other hand, although ***** is computable if the weight (g) of a calcium chloride and 2 monohydrate is found simply and this is broken by specific gravity (weight/volume), it becomes conversion with weight and the volume to use specific gravity. That is, it sets to have mentioned above (formula B), and specific gravity is included, and suppose that conversion with weight and the volume was made.

[0049] From these [to 0050]

{(weight g) / specific gravity (g/ml) x7 - 10 = container volume of a calcium chloride and 2 monohydrate} ... (formula C)

[0051] It becomes. (The specific gravity of a calcium chloride and 2 monohydrate adopts 2.38 (inverse number of 0.42)) If this formula is simplified (formula B), it will become.

[0052] Here, if it asks for a calcium chloride and 2 monohydrate from the beginning to the volume, it will be 42ml = 100g, but an expression called a calcium chloride and 2 42ml monohydrate takes cautions, in order to imagine the volume of a granular object.

[0053] When the container volume was computed by this approach, it became "the volume 7 to 10 times the volume of a calcium chloride and 2 monohydrate", and the value computed in the volume of said bottle object 2 after this was adopted in the gestalt of this operation.

[0054] And this bottle object 2 is in the condition which held said package object 1 cut in said opening

space 23, and is set as said dehumidification drugs 16 and the depth to which ... is located in said about three up opening of said bottle object 2.

[0055] In the gestalt of this operation concerning the above configuration, it holds in a closed space 21 in the bag body 11 formed with the non-water permeability films 12 and 12 with which the dehumidification drugs 16 which absorb moisture the moisture in air, and ... intercept transparency of air. For this reason, contact of external air, and said dehumidification drugs 16 and ... can be prevented. Therefore, in before the beginning of using, moisture absorption by said dehumidification drugs 16 and ... can be prevented.

[0056] In case this dehumidifier 5 is used, as the drawing 1 destructive line showed, said package object 1 upper part is cut with scissors etc., and said closed space 21 is opened. At this time, said dehumidification drugs 16 and the hold space 15 in which ... was held are separated by said fine porosity film 14 with said opening space 23. For this reason, in the condition of having carried out opening of this opening space 23, said dehumidification drugs 16 and unprepared scattering of ... can be prevented. And since this fine porosity film 14 permits transparency of air, it can start contact to the air of said dehumidification drugs 16, ..., the exterior.

[0057] And since said opening space 23 is cut with scissors at the time of this opening and should just carry out opening at it, the non-infiltrative sheet on the infiltrative sheet set as the large area must be exfoliated on moisture absorption effectiveness, and the amount of dust can be stopped as compared with the former by which this non-infiltration sheet will be discarded as dust. Moreover, on an infiltrative sheet, it is easy to separate, the non-infiltrative sheet by which the laminating was carried out must be set up from said infiltrative sheet, and a manufacturing cost can be held down as compared with the former which had to fix both with different bond strength. Moreover, since it is not necessary to pack with the package object of non-infiltration like the conventional saccate dehumidification agent (vessel) or refill dehumidification drugs, the amount of dust is stopped and a manufacturing cost can also be reduced.

[0058] Next, the opening part of the bag body 11 cut with scissors is extended in a longitudinal direction. At this time, said fine porosity film 14 is bent in the shape of V character in the center section of said bag body 11, and it is constituted so that a bag body 11 can be developed in a longitudinal direction. For this reason, the area which said fine porosity film 14 which influences moisture absorption effectiveness occupies can be increased.

[0059] And as shown in (b) of drawing 2, this fine porosity film 14 is set to the lid 4 concerned where the reversed lid 4 is met. It falls on the fine porosity film with which the dehumidification drugs 16 in the hold space 15 and ... were developed at this time. On this lid 4, as shown in (c) of drawing 2, after inner-**(ing) to peripheral wall 4a of reversed bottle object 2 **, as shown in (d) of drawing 2, it is made to stand erect and a dehumidifier 5 is completed. In addition, even after erecting a dehumidifier 5 if the amount of the air in the hold space 15 is lessened in case a bag body 11 is manufactured, the dehumidification drugs 16 and ... can be located near opening of a dehumidifier 5. moreover, the thing for which the height of a bag body 11 is made high and the bag body lower part is bent with a bottle object 2 compared with the height of a bottle object 2 -- the dehumidification drugs 16 and ... with [of a dehumidifier 5] opening -- near -- it can be located.

[0060] Thus, since it is arranged, without being developed compulsorily and the fine porosity film 14 closing simply and the fine porosity film 14 and dehumidification drugs are located near [said / up opening 3] a bottle object 2 (near), moisture absorption effectiveness of said package object 1 contained by said bottle object 2 by assembling improves much more. Moreover, since a package object does not interfere in the fitting parts of a container and a lid, fitting of a container and the lid can be carried out certainly.

[0061] Moreover, since the up opening 3 of the bottle object 2 with which said fine porosity film 14 is arranged is covered with the lid 4 equipped with the bleeder outside drawing, it can prevent breakage of said fine porosity film 14 resulting from fall of the foreign matter to the dehumidifier 5 concerned etc. Thereby, the outflow to the exterior of contents, such as the dehumidification drugs 16 and ..., can be prevented.

[0062] Furthermore, the volume of said bottle object 2 is set up more than the volume of the contents which consist of said dehumidification drugs 16, the dehumidification drugs 16 concerned in the condition that moisture absorption by ... was saturated mostly, and moisture that absorbed moisture with ... For this reason, the outflow to the exterior of the moisture stored by the package object 1 after dehumidification can be prevented.

[0063] On the other hand, in case said package object 1 is manufactured, these dehumidification drugs 16 and ... can be held in the package object 1 by supplying said dehumidification drugs 16 and ... to said bag body 11. And the bag body 11 concerned can be sealed by joining said bag body 11 on an opening veranda from said fine porosity film 14 prepared in said bag body 11. Thus, since the package object 1 can be manufactured at an easy process, simplification of a production process can be attained.

[0064] (Gestalt of the 2nd operation)

[0065] Drawing 3 is drawing showing the gestalt of the 2nd operation, and only by being attached to a different part, it is explained, while attaching the sign same about an equivalent functional division identically to the gestalt of the 1st operation and omitting explanation.

[0066] That is, the up opening 33 is formed in the bottle object 32 which constitutes a dehumidifier 31 with the package object 1 mentioned above, and the major diameter 34 extended to the side is formed in the opening edge of this up opening 33. It is constituted so that the peripheral wall 36 of said lid 35 can be supported in the condition of having inner-**^(ed), by this.

[0067] Also in the gestalt of this operation, while making the fine porosity film 14 of the package object 1 meet the reversed lid 35 as shown in (b) of drawing 3, location regulation is carried out in the condition of having arranged inside the peripheral wall 36 of the lid 35 concerned. And as shown in (c) of drawing 3, after attaching the reversed bottle object 32 on this lid 35, as shown in (d) of drawing 3, it is made to stand erect and a dehumidifier 31 is completed.

[0068] (Gestalt of the 3rd operation)

[0069] Moreover, drawing 4 is drawing showing the gestalt of the 3rd operation, and only by being attached to a different part, it is explained, while attaching the sign same about an equivalent functional division identically to the gestalt of the 1st operation and omitting explanation.

[0070] That is, the up opening 133 is formed in the bottle object 132 which constitutes a dehumidifier 131 with the package object 1 mentioned above, and the peripheral wall 137 attached outside the opening edge of a bottle object 132 is formed in the location specification-part 136 upper part of the periphery of the lid 135 which closes said up opening 133. Said location specification part 136 carries out location regulation, where said package object 1 is attached, and said peripheral wall 137 is located outside this location specification part 136.

[0071] Also in the gestalt of this operation, as shown in (b) of drawing 4, location regulation is carried out in the condition of having arranged the fine porosity film 14 of the package object 1 inside the location specification part 136 of the lid 135 concerned where the reversed lid 135 is met. And as shown in (c) of drawing 3, after attaching the reversed bottle object 132 on this lid 135, as shown in (d) of drawing 4, it is made to stand erect and a dehumidifier 131 is completed.

[0072] (Gestalt of the 4th operation)

[0073] Moreover, drawing 5 is drawing showing the gestalt of the 4th operation, and only by being attached to a different part, it is explained, while attaching the sign same about an equivalent functional division identically to the gestalt of the 1st operation and omitting explanation.

[0074] That is, the up opening 233 is formed in the bottle object 232 which constitutes a dehumidifier 231 with the package object 1 mentioned above, and the location specification part 236 which carries out location regulation of said fine porosity film 14 of said package object 1 in the condition of having arranged inside is set up by the lid 235 which closes said up opening 233. The peripheral wall 237 attached outside said up opening 233 of said bottle object 232 is formed in the periphery section of this location specification part 236.

[0075] Also in the gestalt of this operation, as shown in (b) of drawing 5, location regulation is carried out in the condition of having arranged the fine porosity film 14 of the package object 1 inside the location specification part 236 of the lid 235 concerned where the reversed lid 235 is met. And as shown

in (c) of drawing 5, after attaching the reversed bottle object 232 on this lid 235, as shown in (d) of drawing 5, it is made to stand erect and a dehumidifier 231 is completed.

[0076] (Gestalt of the 5th operation)

[0077] Drawing 6 is drawing showing the gestalt of the 5th operation, and only by being attached to a different part, it is explained, while attaching the sign same about an equivalent functional division identically to the gestalt of the 1st operation and omitting explanation.

[0078] That is, the frame member 41 made from plastics which surrounds the fine porosity film 14 concerned is formed in the part of the bag body 11 with which the fine porosity film 14 was fixed.

[0079] Thereby, the **** condition of said fine porosity film 14 can be secured, and the dehumidification effectiveness can be maintained.

[0080] (Gestalt of the 6th operation)

[0081] Drawing 7 and drawing 8 are drawings showing the gestalt of operation of the 6th of this invention, and explain only the package object 51.

[0082] That is, this package object 51 is formed of the dehumidification drugs 52 and the hold sections 53 and 53 of the pair which held ... The hold space 56 where it came to be joined in periphery section 51a and center-section 51b in, and the nontransparent nature film 54 as a non-infiltration sheet with which this ***** 53 intercepts transparency of the air as a gas, and the penetrable film 55 which consists of an infiltration sheet which permits transparency of the air which is a gas held much said granular dehumidification drugs 52 and ... between both the films 54 and 55 is formed.

[0083] As shown in drawing 8, both the hold sections 53 and 53 are in the condition of having made said penetrable film 55 meeting, and are joined in edge 61a of the handle part 61 formed in the periphery section in the shape of a KO character (refer to (b) of drawing 8). Thereby, in the package object 51 concerned, while a closed space 62 is formed, between said penetrable film 55 of said both hold sections 53 and 53, and 55, the opening space 63 by which opening is carried out at the time of use is formed.

[0084] In the gestalt of this operation concerning the above configuration, it holds in the closed space 62 surrounded with the nontransparent nature films 54 and 54 with which the dehumidification drugs 52 which absorb moisture the moisture in air, and ... intercept transparency of air. For this reason, contact of external air, and said dehumidification drugs 52 and ... can be prevented. Therefore, in before the beginning of using, moisture absorption by said dehumidification drugs 52 and ... can be prevented.

[0085] In case this package object 51 is used, as the drawing 8 destructive line showed, along with cutoff line 71a, the periphery section of said package object 51 is cut in the shape of a KO character with scissors etc., and said closed space 63 is opened. At this time, said dehumidification drugs 52 and the hold space 56 in which ... was held are separated by said penetrable films 55 and 55 with said opening space 63. For this reason, said both container section 53 can be developed right and left, as shown in drawing 7, and in the condition of having carried out opening of said opening space 63, said dehumidification drugs 52 and unprepared scattering of ... can be prevented. Moreover, since this penetrable film 55 permits transparency of air, it can start contact to the air of said dehumidification drugs 52, ..., the exterior.

[0086] And since the periphery section of the package object 51 is cut with scissors at the time of this opening and should just carry out opening at it, the non-infiltrative sheet on the infiltrative sheet set as the large area must be exfoliated on moisture absorption effectiveness, and the amount of dust can be stopped as compared with the former by which this non-infiltration sheet will be discarded as dust.

Moreover, on an infiltrative sheet, it is easy to separate, the non-infiltrative sheet by which the laminating was carried out must be set up from said infiltrative sheet, and a manufacturing cost can be held down as compared with the former which had to fix both with different bond strength.

[0087] Moreover, since it is not necessary to pack with the package object of non-infiltration like the conventional saccate dehumidification agent (vessel) or refill dehumidification drugs, the amount of dust is stopped and a manufacturing cost can also be reduced. In addition, although the nontransparent film 54 was used as a non-infiltrative sheet in the gestalt of this operation, psuedo-adhesion of the periphery section of this shaping container is carried out, and you may make it remove using the shaping container of nontransparent nature at the time of use.

[0088] (Gestalt of the 7th operation)

[0089] Drawing 9 and drawing 10 are drawings showing the gestalt of the 7th operation, and only by being attached to a different part, they are explained, while attaching the sign same about an equivalent functional division identically to the gestalt of the 6th operation and omitting explanation.

[0090] Namely, as for the package object 71 concerning the gestalt of this operation, one hold space 56 where it is joined only by periphery section 51a, and the nontransparent nature film 54 and the penetrable film 55 held much granular dehumidification drugs 52 and ... between both the films 54 and 55 is formed.

[0091] Thereby, as compared with the gestalt of the 6th operation, further increase of the area of the penetrable film 55 can be aimed at at the time of expansion.

[0092] In addition, although the dehumidification drugs 16, ..., 52 and the package objects 1, 51, and 71 which held ... were mentioned as the example and explained if it was in the gestalt of each operation mentioned above You may be the bag body which contained the not thing limited to this but matter from which condition changes according to contact to air, for example, aromatic, insecticide, repellent, deodorant, deodorant, dehumidification agent, drying-agent, deoxidant, simple Cairo, and nitrogen-oxides absorber etc. furthermore, when the condition changed with vaporization of these components, absorption, etc., change, such as coloring and transparency change, enabled it to judge visually -- passing -- the time -- an indicator, a moisture indicator, an oxygen density indicator, a nitrogen-oxides indicator, etc. -- mentioning -- having . Moreover, although the fine porosity film was mentioned as the example and explained as an infiltrative member, the purpose component can be penetrated, and especially if scattering of a component can be prevented, it will not be limited, and can choose suitably for the purpose of a product. Specifically, a nonwoven fabric, a perforated film, paper, polyurethane, polyethylene, an ethylene-vinyl acetate copolymer, polypropylene, nylon, etc. can be mentioned.

[0093]

[Example] They are alumina vacuum evaporationo PET15micrometer thickness / LLDPE60micrometer thickness [0094] as a non-infiltrative sheet. It is the heart as an infiltrative sheet :P ET / sheath :P 70 micrometer thickness of polyolefine system fine porosity film which stuck the nonwoven fabric of E on both sides [0095] the saccate dehumidifier of this invention article 1 like ***** drawing 11 -- it created 301 times.

[0096] In addition, the sign same about an equivalent functional division identically to the gestalt of the 1st operation is attached, and explanation is omitted. Moreover, they may be dimension S1=250mm, dimension S2=160mm, and dimension S3=50mm into drawing 11 .

[0097] About the saccate dehumidifier 301 of this invention article 1, as shown in drawing 12 , it is bottom container:depth [width-of-face / of W= 200mm / x / of D= 85mm] x height of H= 70mm. It put into the lid 302 grid-like container 303, and the dehumidifier 304 of this invention article 2 was created.

[0098] It examined by the following item using this invention article 1 and 2.

[0099] ** Product performance degradation trial [0100] The saccate dehumidifier 301 of this invention article 1 created above was left for two months under the condition of the temperature of 40 degrees C, and 90% of humidity, and the weight after neglect was measured. As a result compared with neglect before, about 2g increment was seen after neglect. The performance degradation with this significant in [circulation] two years is not generated.

[0101] ** Moisture absorption rate comparison [0102] 1: It is bottom container:depth [width-of-face / of W= 200mm / x / of D= 85mm] x height of H= 70mm in (the condition that moisture absorption drugs are in a pars-basilaris-ossis-occipitalis side in a bag) as the fine porosity film is developed for what cut the dotted-line section 311 of drawing 11 R> 1 for the saccate dehumidifier 301 of this invention article 1 with scissors. It put into the lid 302 grid-like container 303.

[0103] 2: What cut the dotted-line section 311 of drawing 9 for the saccate dehumidifier 301 of this invention article 1 with scissors was put into the bottom container:height [width-of-face / of W= 200mm / x depth / of D= 85mm / x] lid [of H= 70mm] 302 grid-like container 303 in the condition that the fine porosity film is developed and the dehumidification drugs 16 and ... are in the fine porosity film 14 side.

[0104] 3: A commercial tank type (180g of trade name "dry pet skit" moisture absorption drugs) [by S.T. Chemical CO., LTD.]

[0105] Three sorts of above products were left for three weeks by the environment of the temperature of 40 degrees C, and 90% of humidity, respectively, and increment weight was measured.

[0106] For the result, as for 330g and 2, 1 was [640g and 3] 580g. It turned out that a more desirable use gestalt is 2.

[0107] ** Impact resistance test (drop test)

[0108] It is a drugs bag in the condition that 350g absorbed moisture [0109] 1: a drugs bag -- it remains as it is.

[0110] 2: What was put in in the carton with a width-of-face [of W= 200mm] x depth [of D= 85mm] x height of H= 70mm.

[0111] 3: Width-of-face [of W= 200mm] x depth [of D= 85mm] x height of H= 70mm What was put in in the container 303 made from lid 302 grid-like plastics.

[0112] Transverse-plane fall was carried out from the height location of 1.2m of each, and shock resistance was evaluated.

[0113] Consequently, 1:bag tearing, 2:bag tearing, 3: A result of normal (bag tearing is not carried out) was brought. Therefore, it turned out that a more desirable use gestalt is 3.

[0114]

[Effect of the Invention] If it is in the package object of claim 1 of this invention as explained above, contact into an external gas can be prevented by holding the matter which changes according to contact into a gas in the closed space formed of the non-infiltration section which intercepts gaseous transparency. Therefore, change of said matter can be prevented before the beginning of using.

[0115] Moreover, said closed space is opened at the time of use. At this time, the hold space in which said matter was held is separated by said infiltration section with the opening space by which opening is carried out at the time of use. For this reason, unprepared scattering of said matter can be prevented in the condition of having carried out opening of this opening space. Moreover, since this infiltration section permits gaseous transparency, it can start contact into said matter and external gas.

[0116] And at the time of opening, since what is necessary is just to carry out opening of said opening space, the non-infiltrative sheet on the infiltrative sheet set as the large area must be exfoliated on moisture absorption effectiveness, and the amount of dust can be stopped as compared with the former by which this non-infiltration sheet will be discarded as dust. Moreover, on an infiltrative sheet, it is easy to remove the non-infiltrative sheet by which the laminating was carried out, it must be set up from said infiltrative sheet, and a manufacturing cost can be held down as compared with the former which had to fix both with different bond strength.

[0117] Moreover, since it is not necessary to pack with the package object of non-infiltration like the conventional saccate dehumidification agent (vessel) or a refill dehumidification agent, the amount of dust is stopped and a manufacturing cost can also be reduced. In addition, although the nontransparent nature film was used as a non-infiltration sheet in the gestalt of this operation, psuedo-adhesion of the periphery section of this shaping container is carried out, and you may make it remove using the shaping container of nontransparent nature at the time of use.

[0118] Moreover, if it is in the package object of claim 2, this matter can be held in a package object by feeding said matter into the bag body which consists of said non-infiltration section. And the bag body concerned can be sealed by joining said bag body on an opening veranda from said sheet object prepared in said bag body. Thus, [0119] which can attain simplification of a production process since a package object can be manufactured at an easy process Furthermore, with the package object of claim 3, since it joined in the condition of having made the infiltration sheet meeting, the infiltration sheet which permits gaseous transparency can be sealed in the condition of having arranged inside.

[0120] Moreover, in the dehumidifier of claim 4 of this invention, contact to external air can be prevented by holding the dehumidification agent which absorbs moisture the moisture in air in the closed space formed of the non-infiltration section which intercepts transparency of air. Therefore, in before the beginning of using, moisture absorption by said dehumidification agent can be prevented.

[0121] Said closed space is opened at the time of use. At this time, the hold space in which said dehumidification agent was held is separated by said infiltration section with the opening space by which opening is carried out at the time of use. For this reason, unprepared scattering of said dehumidification agent can be prevented in the condition of having carried out opening of this opening space. And since this infiltration section permits transparency of air, it can start contact to said dehumidification agent and external air.

[0122] And at the time of opening, since what is necessary is just to carry out opening of said opening space, the non-infiltrative sheet on the infiltrative sheet set as the large area must be exfoliated on moisture absorption effectiveness, and the amount of dust can be stopped as compared with the former by which this non-infiltration sheet will be discarded as dust. Moreover, on an infiltrative sheet, it is easy to separate, the non-infiltrative sheet by which the laminating was carried out must be set up from said infiltrative sheet, and a manufacturing cost can be held down as compared with the former which had to fix both with different bond strength.

[0123] Moreover, since it is not necessary to pack with a non-infiltrative package object like the conventional saccate dehumidification agent (vessel) or refill dehumidification drugs, the amount of dust is stopped and a manufacturing cost can also be reduced. In addition, although the nontransparent nature film was used as a non-infiltrative sheet in the gestalt of this operation, false adhesion of the periphery section of this shaping container is carried out, and you may make it remove using the shaping container of nontransparent nature at the time of use.

[0124] Furthermore, with the dehumidifier of claim 5, this dehumidification agent can be held in a package object by feeding said dehumidification agent into the bag body which consists of said non-infiltration section. And the bag body concerned can be sealed by joining said bag body on an opening veranda from said sheet object prepared in said bag body. Thus, since a package object can be manufactured at an easy process, simplification of a production process can be attained.

[0125] Moreover, if it was in the dehumidifier of claim 6, since it joined in the condition of having made the infiltration sheet meeting, the infiltration sheet which permits transparency of air can be sealed in the condition of having arranged inside.

[0126] In addition, in the dehumidifier of claim 7, the volume of the bottle object which holds said package object is set as 7 or more times of the volume of said dehumidification agent. Thereby, the outflow to the exterior of the moisture stored by the package object after dehumidification can be prevented.

[0127] Moreover, in order to demonstrate absorbency efficiently, said package object is set so that the infiltration section may turn to the up opening side of a bottle object. Here, since this up opening is covered with the lid equipped with the bleeder, it can prevent breakage of said infiltration section resulting from fall of the foreign matter to the dehumidifier concerned etc. Thereby, the outflow to the exterior of contents, such as a dehumidification agent, can be prevented. Since it is arranged, without being developed compulsorily and the infiltration section of a package object closing simply and the infiltration section and dehumidification drugs are located near [said] up opening (near) of a bottle object, moisture absorption effectiveness improves much more.

[0128] And in the condition of having held said package object in said bottle object, a dehumidification agent can be arranged near [said] the up opening of said bottle object. Therefore, said dehumidification agent can raise moisture absorption effectiveness from said up opening as compared with the case where it is arranged at a pars-basilaris-ossis-occipitalis side.

[0129] Moreover, if it was in the dehumidifier of claim 8, while said lid inner-**^(ed) at said up opening of said bottle object, the location specification part which carries out location regulation of said infiltration sheet of said package object in the condition of having arranged inside was prepared. Therefore, since a package object does not interfere in the fitting parts of a container and a lid, fitting of a container and the lid can be carried out certainly.

[0130] Furthermore, with the dehumidifier of claim 9, while preparing the location specification part which carries out location regulation of said infiltration sheet of said package object in the condition of having arranged inside in said lid, the peripheral wall attached outside said up opening of said bottle

object was prepared outside this location specification part.

[0131] A bottle object and a lid can consist of such easy structures.

[Translation done.]

*** NOTICES ***

JPO and NCIPI are not responsible for any damages caused by the use of this translation.

1. This document has been translated by computer. So the translation may not reflect the original precisely.
2. **** shows the word which can not be translated.
3. In the drawings, any words are not translated.

EFFECT OF THE INVENTION

[Effect of the Invention] If it is in the package object of claim 1 of this invention as explained above, contact into an external gas can be prevented by holding the matter which changes according to contact into a gas in the closed space formed of the non-infiltration section which intercepts gaseous transparency. Therefore, change of said matter can be prevented before the beginning of using.

[0115] Moreover, said closed space is opened at the time of use. At this time, the hold space in which said matter was held is separated by said infiltration section with the opening space by which opening is carried out at the time of use. For this reason, unprepared scattering of said matter can be prevented in the condition of having carried out opening of this opening space. Moreover, since this infiltration section permits gaseous transparency, it can start contact into said matter and external gas.

[0116] And at the time of opening, since what is necessary is just to carry out opening of said opening space, the non-infiltrative sheet on the infiltrative sheet set as the large area must be exfoliated on moisture absorption effectiveness, and the amount of dust can be stopped as compared with the former by which this non-infiltration sheet will be discarded as dust. Moreover, on an infiltrative sheet, it is easy to remove the non-infiltrative sheet by which the laminating was carried out, it must be set up from said infiltrative sheet, and a manufacturing cost can be held down as compared with the former which had to fix both with different bond strength.

[0117] Moreover, since it is not necessary to pack with the package object of non-infiltration like the conventional saccate dehumidification agent (vessel) or a refill dehumidification agent, the amount of dust is stopped and a manufacturing cost can also be reduced. In addition, although the nontransparent nature film was used as a non-infiltration sheet in the gestalt of this operation, psuedo-adhesion of the periphery section of this shaping container is carried out, and you may make it remove using the shaping container of nontransparent nature at the time of use.

[0118] Moreover, if it is in the package object of claim 2, this matter can be held in a package object by feeding said matter into the bag body which consists of said non-infiltration section. And the bag body concerned can be sealed by joining said bag body on an opening veranda from said sheet object prepared in said bag body. Thus, [0119] which can attain simplification of a production process since a package object can be manufactured at an easy process Furthermore, with the package object of claim 3, since it joined in the condition of having made the infiltration sheet meeting, the infiltration sheet which permits gaseous transparency can be sealed in the condition of having arranged inside.

[0120] Moreover, in the dehumidifier of claim 4 of this invention, contact to external air can be prevented by holding the dehumidification agent which absorbs moisture the moisture in air in the closed space formed of the non-infiltration section which intercepts transparency of air. Therefore, in before the beginning of using, moisture absorption by said dehumidification agent can be prevented.

[0121] Said closed space is opened at the time of use. At this time, the hold space in which said dehumidification agent was held is separated by said infiltration section with the opening space by which opening is carried out at the time of use. For this reason, unprepared scattering of said dehumidification agent can be prevented in the condition of having carried out opening of this opening space. And since this infiltration section permits transparency of air, it can start contact to said

dehumidification agent and external air.

[0122] And at the time of opening, since what is necessary is just to carry out opening of said opening space, the non-infiltrative sheet on the infiltrative sheet set as the large area must be exfoliated on moisture absorption effectiveness, and the amount of dust can be stopped as compared with the former by which this non-infiltration sheet will be discarded as dust. Moreover, on an infiltrative sheet, it is easy to separate, the non-infiltrative sheet by which the laminating was carried out must be set up from said infiltrative sheet, and a manufacturing cost can be held down as compared with the former which had to fix both with different bond strength.

[0123] Moreover, since it is not necessary to pack with a non-infiltrative package object like the conventional saccate dehumidification agent (vessel) or refill dehumidification drugs, the amount of dust is stopped and a manufacturing cost can also be reduced. In addition, although the nontransparent nature film was used as a non-infiltrative sheet in the gestalt of this operation, false adhesion of the periphery section of this shaping container is carried out, and you may make it remove using the shaping container of nontransparent nature at the time of use.

[0124] Furthermore, with the dehumidifier of claim 5, this dehumidification agent can be held in a package object by feeding said dehumidification agent into the bag body which consists of said non-infiltration section. And the bag body concerned can be sealed by joining said bag body on an opening veranda from said sheet object prepared in said bag body. Thus, since a package object can be manufactured at an easy process, simplification of a production process can be attained.

[0125] Moreover, if it was in the dehumidifier of claim 6, since it joined in the condition of having made the infiltration sheet meeting, the infiltration sheet which permits transparency of air can be sealed in the condition of having arranged inside.

[0126] In addition, in the dehumidifier of claim 7, the volume of the bottle object which holds said package object is set as 7 or more times of the volume of said dehumidification agent. Thereby, the outflow to the exterior of the moisture stored by the package object after dehumidification can be prevented.

[0127] Moreover, in order to demonstrate absorbency efficiently, said package object is set so that the infiltration section may turn to the up opening side of a bottle object. Here, since this up opening is covered with the lid equipped with the bleeder, it can prevent breakage of said infiltration section resulting from fall of the foreign matter to the dehumidifier concerned etc. Thereby, the outflow to the exterior of contents, such as a dehumidification agent, can be prevented. Since it is arranged, without being developed compulsorily and the infiltration section of a package object closing simply and the infiltration section and dehumidification drugs are located near [said] up opening (near) of a bottle object, moisture absorption effectiveness improves much more.

[0128] And in the condition of having held said package object in said bottle object, a dehumidification agent can be arranged near [said] the up opening of said bottle object. Therefore, said dehumidification agent can raise moisture absorption effectiveness from said up opening as compared with the case where it is arranged at a pars-basilaris-ossis-occipitalis side.

[0129] Moreover, if it was in the dehumidifier of claim 8, while said lid inner-***(ed) at said up opening of said bottle object, the location specification part which carries out location regulation of said infiltration sheet of said package object in the condition of having arranged inside was prepared.

Therefore, since a package object does not interfere in the fitting parts of a container and a lid, fitting of a container and the lid can be carried out certainly.

[0130] Furthermore, with the dehumidifier of claim 9, while preparing the location specification part which carries out location regulation of said infiltration sheet of said package object in the condition of having arranged inside in said lid, the peripheral wall attached outside said up opening of said bottle object was prepared outside this location specification part.

[0131] A bottle object and a lid can consist of such easy structures.

[Translation done.]

*** NOTICES ***

JPO and NCIPI are not responsible for any damages caused by the use of this translation.

1. This document has been translated by computer. So the translation may not reflect the original precisely.
2. **** shows the word which can not be translated.
3. In the drawings, any words are not translated.

DESCRIPTION OF DRAWINGS

[Brief Description of the Drawings]

[Drawing 1] It is the mimetic diagram showing the gestalt of operation of the 1st of this invention.

[Drawing 2] It is the explanatory view showing the busy condition of the gestalt of this operation.

[Drawing 3] It is the explanatory view showing the busy condition of the gestalt of operation of the 2nd of this invention.

[Drawing 4] It is the explanatory view showing the busy condition of the gestalt of operation of the 3rd of this invention.

[Drawing 5] It is the explanatory view showing the busy condition of the gestalt of operation of the 4th of this invention.

[Drawing 6] It is the mimetic diagram showing the gestalt of operation of the 5th of this invention.

[Drawing 7] It is the mimetic diagram showing the condition of having developed the gestalt of operation of the 6th of this invention.

[Drawing 8] It is the mimetic diagram showing the gestalt of this operation.

[Drawing 9] It is the mimetic diagram showing the condition of having developed the gestalt of operation of the 7th of this invention.

[Drawing 10] It is the mimetic diagram showing the gestalt of this operation.

[Drawing 11] It is the mimetic diagram showing the saccate dehumidifier used in the example of this invention.

[Drawing 12] It is drawing showing the bottom container in the example of this invention.

[Description of Notations]

1 Package Object

2 Bottle Object

3 Up Opening

4 Lid

4a Peripheral wall

5 Dehumidifier

11 Bag Body

12 Non-Water Permeability Film (Non-Infiltration Section)

14 Fine Porosity Film (Infiltration Section)

15 Hold Space

16 Dehumidification Drugs (Dehumidification Agent)

21 Closed Space

23 Opening Space

31 Dehumidifier

32 Bottle Object

33 Up Opening

35 Lid

51 Package Object

52 Dehumidification Drugs
53 Hold Section
54 Nontransparent Nature Film (Non-Infiltration Sheet)
55 Penetrable Film (Infiltration Sheet)
56 Hold Space
62 Closed Space
63 Opening Space
71 Package Object
52 Dehumidification Drugs
53 Hold Section
54 Nontransparent Nature Film (Non-Infiltration Sheet)
55 Penetrable Film (Infiltration Sheet)
56 Hold Space
62 Closed Space
63 Opening Space
131 Dehumidifier
132 Bottle Object
133 Up Opening
135 Lid
136 Location Specification Part
137 Peripheral Wall
231 Dehumidifier
232 Bottle Object
233 Up Opening
235 Lid
236 Location Specification Part
237 Peripheral Wall
301 Saccate Dehumidifier
303 Container
304 Dehumidifier

[Translation done.]